

Bonus-credit Quiz (10 points)

This is an open-book (except graded homeworks) quiz. Complete the questions in twenty minutes without using Matlab.

Grading Policy from Dr. Joe Marr. The grading policy for tomorrow's exam extra credit quiz will be as follows, since exam extra credit (exam EC) is worth 50% more than normal homework EC when computing your final grade:

We will award partial credit only if it is apparent from the student's work that the student clearly understands how to solve the given problem (and thus we discourage random scribbling). We favor partial credit awards for Matlab code only if that code contains small, easily corrected syntax errors, because under normal (non-quiz) circumstances a student would use Matlab to write Matlab code, and, Matlab would immediately signal simple syntax errors for correction. However, we do not favor or intend to award partial credit for Matlab code that contains serious **LOGIC ERRORS**: These clearly indicate a lack of understanding about how to actually solve a problem -- i.e., a lack of problem solution logic, or, algorithmic thinking. Problem solution logic is independent of any code development environment and thus, is independent of any actual computer code -- including Matlab. Furthermore, a lack of problem solution logic is very apparent, whether the proposed Matlab code contains syntax errors or not.

Q1 (3 points). Suppose $x = [-1, 0, 3, 6]$ and $y = [0, 3, 1, -3]$, work out the results of the following expressions

(a) $x + (\sim y)$

(b) $x > 3*y$

Q2. (4 points) Using a set of nested for-loops and one or more if-statements to obtain a matrix that has the following matrix elements: (Do not type the numbers explicitly).

M =

0	12	13	14	0
12	0	14	0	16
13	14	0	16	17
14	0	16	0	18
0	16	17	18	0

Q3. (3 points) Rewrite the following statements to use only one if statement.

```
if x ~= y
    if z < 10
        w = x*y*z;
    else
        w = -x*y*z;
    end
end
```